Wetland Technology Development Team

National Wetland Team

Our Mission

Develop, adapt, and disseminate wetland science and technology needed to support the technical needs of the Natural Resources Conservation Service (NRCS); in order to protect, restore, and enhance wetlands.

Functions

- Develop applied scientific techniques for wetland conservation.
- Provide expert technical consultation to NRCS and others for resolving problem areas in the field.
- Develop and disseminate NRCS technical documents including handbooks, manuals, technical standards, and other publications to provide state-of-the-art information.
- Serve as NRCS technical liaison with government and university research, and with National Technology Centers to ensure the coordination and cooperative development and dissemination of emerging wetland science information.
- Serve as resident technical experts in wetland hydrology, hydrophytic vegetation, hydric soils, wetland wildlife, and other wetland functions; and develop specialized training in wetland science.

Wetland Team (l to r): Dr. Norman Melvin, Team Leader; Richard Weber, wetland hydraulic engineer,;and Lee Davis, wetland biologist. *(See additional team information on back page.)*

Wetland Restoration & Enhancement

The Wetland Team is responsible for the development of wetland restoration and enhancement technology development, and the delivery of this technology within NRCS through the publication of agency documents, scientific publications, and training. The Wetland Team, in conjunction with the Conservation Engineering Division, maintains Chapter 13 (Wetland Restoration, Enhancement, or Creation) and Chapter 19 (Wetland Tools for Hydrology) of the Engineering Field Handbook. The team develops and maintains the National Technical Standards for Wetland Restoration (657), Wetland Enhancement (659), and Wetland Creation (658). In addition, the Team maintains technical coordination and delivery of Wetland Plant Identification training and the NRCS training courses in Wetland Restoration & Enhancement.

Placement of large woody debris (above) and creating microtopography (below) are typical practices in wetland restoration.

Wetland Functional Assessments

The National Wetland Team provides States with support on all technical issues pertaining to wetland functional assessments. The Wetland Team is in the process of developing a formal training/workshop on functional assessments, hydrogeomorphic (HGM) wetland classification, HGM functional assessments, development of rapid functional assessment models, use of data inputs into functional assessment to determine minimal effect, and use of data inputs and time/function calculations to determine appropriate minimal effect thresholds, mitigation requirements, and mitigation ratios.

Wetland Identification & Delineation

The National Wetland Team provides guidance, tools, training, and leadership within NRCS regarding the development and application of science-based methods and tools related to wetland identification and delineation. Team members serve on several national and regional teams, including the National Technical Committee for Hydrophytic Vegetation, National Advisory Team to regionalize the 1987 Corps of Engineers Wetland Delineation Manual, and national and regional plant panels to update the *1988 National List of Vascular Plant Species That Occur in Wetlands*. Additionally, the Wetland Team is leading an effort by NRCS to develop and deliver ***Wetland Delineation for NRCS***, a training course which will be available to NRCS staffs through the National Employee Development Center. Team members hold lead roles and provide technical oversight in all existing NRCS training courses related to wetland identification and delineation, including hydric soils, advanced hydric soils, identification of hydrophytic vegetation, and hydrology tools for wetland delineation.

Collateral Associations

The Wetland Team collaborates with others in activities that directly involve wetland science, such as the NRCS National Invasive Species Advisory Committee and the NRCS National Plants Data Center. The Wetland Team has assisted in the development of electronic vegetation keys including the acquisition of data, development, and review. The Team also maintains membership on the Federal Geographic Data Committee.

Hydric Soils

The presence of hydric soil is one of the three mandatory criteria used in the identification and delineation of wetlands. National Team staff provides the development of tools, interpretation, and training of hydric soil indicators.

Team Members

Dr. Norman Melvin, Wetland Team Leader, is a botanist and plant ecologist with a BS in Biology from Presbyterian College, SC; a MS in Botany from Clemson University, SC; and Ph.D. in Botany from Miami University, OH. Norman has been with NRCS since 1990, including 10 years as a member of the NRCS Wetland Science Institute. Formerly, he was Botanist and Chairman of the Biology Department at St. Andrews College, NC. His area of expertise includes wetland restoration & enhancement, plant identification, and invasive species in wetlands.

Lee Davis is a wildlife biologist with an BS degree in Wildlife Science from Texas Tech University and MS degree in Wildlife Management from Louisiana State University. With NRCS since 1983, he has worked as a coastal biologist in SE Louisiana and state wetland specialist in Texas. His primary focus on the Team includes wetland identification & delineation, wetland functional assessment, and wetland wildlife.

Richard Weber is the Team's wetland hydraulic engineer, with a BS in Agricultural Engineering from Kansas State University and is a licensed professional engineer. He has worked for NRCS for over 25 years in Kansas, Nebraska, and Washington, and joined the Wetland Team in 2006. His area of concentration on the Team includes engineering, bioengineering, hydrology, stream restoration, wetland construction and construction contracting, and wetland aquatic organism passage issues.

Contact Us...

Norman Melvin, Team Leader
817-509-3572
Norman.Melvin@ftw.usda.gov

Lee Davis, Wetland Biologist
817-509-3331
Lee.Davis@ftw.usda.gov

Richard Weber, Wetland Hydraulic Engineer
817-509-3576
Richard.Weber@ftw.usda.gov

Mailing Address:
USDA- Natural Resources Conservation Service
Central National Technology Support Center
501 West Felix, Building 23
Fort Worth, Texas 76115